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BOOK CATALOG AND CARD CATALOG--A COST AND SERVICE STUDY.

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PUB DATE MAR 67

EDRS PRICE MF-$0.25 HC-$2.28 55P.

DESCRIPTORS- *BOOK CATALOGS, *CATALOGS, *COST EFFECTIVENESS, *PUBLIC LIBRARIES, *EVALUATION, LIBRARY TECHNICAL PROCESSES, LIBRARY SERVICES, COMPUTERS, AUTOMATION, DECENTRALIZED LIBRARY SYSTEM, INTERLIBRARY LOANS, LIBRARY COOPERATION, LIBRARY EXPENDITURES, BALTIMORE COUNTY PUBLIC LIBRARY,

THIS STUDY, COVERING BOTH TECHNICAL AND PUBLIC SERVICES, IS BASED ON TWO YEARS' OPERATION OF THE CENTRAL LIBRARY AND BRANCHES OF THE BALTIMORE COUNTY PUBLIC LIBRARY--THE LAST YEAR THE CARD CATALOG WAS USED AND THE FIRST YEAR OF USING THE COMPUTER-PRODUCED BOOK CATALOG. THE FIGURES, CONTAINING SOME EXTRAPOLATIONS, WERE OBTAINED FROM THE LIBRARY'S FISCAL-YEAR STATISTICS, SURVEYS, AND SAMPLING. SOME MAJOR CONCLUSIONS ABOUT THE BOOK CATALOG WERE THAT--(1) IT HAS BEEN AN ADDED EXPENSE, (2) MAINTENANCE COSTS SHOULD REMAIN STABLE OR DECREASE AFTER THE INITIAL EXPENSE OF ESTABLISHMENT, (3) THE MOST VALUABLE SERVICE ACCRETION HAS BEEN THE CATALOG'S UNION LIST FUNCTION FOR ALL LIBRARY AGENCIES, RESULTING IN GREATER USE OF THE COLLECTION AND A 51 PERCENT INCREASE IN INTERLIBRARY LOANS, (4) DISTRIBUTING THE CATALOG TO SCHOOLS AND ELSEWHERE IS USEFUL, (5) THE LACK OF BIBLIOGRAPHIC INFORMATION IN THE CATALOG IS OF SOME INCONVENIENCE FOR LIBRARIANS SERVING THE PUBLIC, (6) THE COMPUTER- PRODUCED BOOK CATALOG IS ADAPTABLE FOR USE IN A FUTURE INTEGRATED SYSTEM THAT WOULD INCLUDE OTHER LIBRARY FUNCTIONS; AND (7) COSTS CAN BE GREATLY REDUCED BY COOPERATING WITH OTHER LIBRARIES. APPENDED ARE SAMPLE BOOK CATALOG PAGES AND EARLIER ARTICLES ON THE BOOK CATALOG THAT APPEARED IN "WILSON LIBRARY BULLETING," NOVEMBER, 1965, AND "LIBRARY RESOURCES AND TECHNICAL SERVICES," SPRING, 1966. THIS STUDY WAS CONDUCTED UNDER A GRANT FROM THE COUNCIL FOR LIBRARY RESOURCES AND IS ALSO AVAILABLE FROM THE BALTIMORE COUNTY LIBRARY, 25 W. CHESAPEAKE AVENUE, TOWSON, MARYLAND 21204, FOR $1.00. (JB)

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BOOK CATALOG AND CARD CATALOG: A COST AND SERVICE STUDY

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This study was made possible by a grant from the

Council on Library Resources, Inc., Washington, D. C.

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION

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MARCH, 1967

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PURPOSE OF THE STUDY

Shortly after the completion of the basic volume of the book catalog of the Baltimore County Public Library, which was put into use in July 1965, an article appeared in the November 1965 issue of the Wilson Library Bulletin outlining the library's experiences in its production (see appendix). Many inquiries were received concerning not only the total cost of the book catalog, but also the comparison of the cost with the maintenance of a card catalog.

Economy was not a reason cited for adoption of a book catalog at the Baltimore County Public Library, since it was felt that not enough information was available on this aspect when the decision was made. After the book catalog had been in use for a year, however, an opportunity to compare costs, at least to an extent, was apparent.

An application to the Council on Library Resources, Incorporated was made in mid-1966, proposing an examination of the following areas:

1. An estimate of the cost of maintenance of the card catalog as previously constituted in the library, in comparison with the basic and annual costs of the book catalog, as now adopted.
2. An analysis of costs of rendering various services as they have been affected by the adoption of the book catalog.
3. A consideration of the functions and services eliminated or added, to which no valid cost figure could be ascribed.

The Council approved a grant, and work was begun on the project by a staff committee. A staff committee was chosen because familiarity with routines and records was deemed important, with full cognizance of the risks inherent in self-evaluation, especially in such sensitive areas as costs and importance of services. Bias has been consciously avoided as much as possible, but of course may not be eliminated completely.

The study was originally timed to be completed in December 1966. Because of the amount of time consumed in gathering statistics and information, however,

this time schedule was stretched to March 1967. We apologize for the delay.

BACKGROUND AND METHODOLOGY

It is not our purpose here to go into details covering the decision of the Baltimore County Public Library to adopt a book catalog or to attack or defend the method of producing this catalog which was finally chosen. This was covered fairly completely in an article titled, The Book Catalog: Diving In, which appeared in the Wilson Library Bulletin for November 1965. Details concerning cataloging rule changes, adaptation made for the computer, etc. appear in an article, The Baltimore County Public Library Book Catalog, which appeared in Library Resources and Technical Services for Spring 1966. Both of these articles are attached as a part of the Appendix to this report.

In short, however, two reasons for the adoption of a book catalog were of paramount importance in this library:

1. There was a need for a union catalog of the holdings of the entire library to be available in each of the system's fourteen branch libraries. By this means the patrons of each branch would have obviously available to them all 615,000 volumes owned by the system, not merely the 30,000 to 80,000 in the particular branch visited. The book catalog would reveal some 56,000 titles rather than the much smaller number in a branch catalog.
2. Elimination of the need to establish card catalogs in each new branch during a time of rapid growth. From 1960-65, four new branches were opened with collections ranging from 20,000 to 65,000 volumes, and during the same time period three other branches were moved into expanded quarters with expanded book collections. The fiscal year 1965-66 saw the opening of one temporary branch with approximately 25,000 volumes and a new agency of 30,000 volumes. In 1967 through 1970, the library

plans to open four new branches containing from 25,000 - 65,000 volumes and to enlarge or move into new quarters four other agencies with expanded book collections.

Various methods of producing a book catalog - sequential camera, tabulating equipment, and computer - were studied, and it was decided to adopt a computer-produced catalog. Documentation, Incorporated of Bethesda, Maryland was selected to produce the catalog.

It was decided that the first issue of the new catalog would be a basic three-volume set containing 56,000 titles, rather than a supplement to the card catalog. This decision was made for two reasons:

1. To avoid setting up a card catalog of any kind in the new branches to be built; and
2. Because the Baltimore County Public Library had immediately available a file of 56,000 titles purchased since 1959 which could be used as a basic source document file without affecting the central catalog or shelf list. Therefore, the first basic book catalog contained entries for only those titles purchased after 1959. Any titles purchased before that date and not duplicated after it were and are being slowly included in the supplements, and the most used will be in the second basic catalog issued in March 1967.

Both the adult and juvenile basic catalogs are bound in three volumes - author, title and subject - rather than in a strict dictionary arrangement. This adult basic catalog is kept up-to-date by means of bi-monthly cumulative supplements, and the juvenile catalog, by cumulative supplements issued quarterly.

Originally, branch holdings for each of the 56,000 titles entered in the book catalog were included for each entry in all three sections of the book catalog, but this seemed an unwarranted cost when it was apparent that the holdings shown would become almost immediately out-of-date and thus erroneous

to a large extent and misleading to the user.

The matter of the amount of bibliographic information contained in an entry caused a great deal of concern and discussion, and to an extent, still does. After considerable consideration of the needs and desires of the vast majority of the users of this particular system, it was decided to use the finding list philosophy rather than to treat the catalog as a more detailed bibliographic tool. The fact that the library had previously used short cataloging made this decision not radically different from the method then in use. The finding list approach and the consequent loss of some bibliographical information that h... previously been contained in the card catalog has resulted in a great deal more comment from the staff than from the public. However, the vast majority of librarians who actually work directly with the public do not find the catalog as constituted difficult to use.

For purposes of comparison, sample entries in the card catalog and in the book catalog are included in the Appendix.

Since, as far as is known, this was the first book catalog produced by a computer for a public library (at least of this size), many difficulties were encountered. However, the final product was deemed to be acceptable and was put into use in July 1965.

After a period of educating the public to the use of the book catalog, librarians were pleased to find that the patron adjusted to its use with a minimum of difficulty.

A full fiscal year's operation under the book catalog system automatically generated many of the statistics required for that aspect of the study; many figures from the years of card catalog operation also provided needed information. However, in several areas there were no ready-made statistics, and surveys and sampling were made. For example, it was discovered by a survey of the branches that despite the number of sets of book catalogs available, there was no marked effect on staff time spent moving from and to the shelves.

By searching for a random sample of catalog entries, the time differential required for bibliographical searching in the two types of catalog was obtained. Sampling and extrapolation of figures gave the number of new titles received by each branch during the two fiscal years.

Although it was known that these techniques could not produce an accounting which would be accurate to the penny, it was felt from the beginning that the results would nonetheless be valid in a broad comparison of costs.

The figures necessary for this study were gathered over a five-month period and contain some extrapolations. It should be remembered that any of the figures used pertain only to work as done in the Baltimore County Public Library system.

This study is based as far as possible on two years' actual operation in the Baltimore County Public Library: the last year the card catalog was used (July 1964 - June 1965) and the first year of use for the book catalog (July 1965 - June 1966), and is divided into two parts: technical services and public services. Under each of these, both the central operations and the branch operations are presented. Only those costs of operation and supply that have been altered by the advent of the book catalog have been itemized. Also included is an estimate of the cost of a union card catalog of the system's holdings for each individual branch.

TECHNICAL SERVICES

Central Operations

In the central technical services operation, actual figures for every item possible have been presented. Those items for which no figures are given are:

1. Filing in the central catalog and shelf list

   There has been no change in this procedure as a union catalog of system holdings has been maintained. The only change would be in the volume of filing to be done because of an increase or decrease in the number of new titles purchased in any given year.

2. Withdrawing from the central catalog and shelf list

   The union catalog and shelf list must still be kept up to date by pulling cards when the last copy of a title in the system is withdrawn. Here again, there is no change because of the book catalog, and the volume of work would depend upon the number of last copies removed from the libraries' shelves.

3. Cost of multilith masters used

   No way of determining this was found because of the number of masters used for duplicating cards and pockets, and forms on 3" x 5" size used by the system for other purposes, e.g. delinquent borrowers' forms. But since the cost of typing multilith masters for catalog cards decreased slightly, it would seem that the actual number of mats used decreased slightly.

4. Typing catalog card headings

   The time consumed typing catalog card headings for the central

catalog did not change. Technical Services was able to stop typing headings on catalog cards for branches to be opened, but this was offset by the necessity of typing shelf list cards for titles new to a branch, but not new to the system. Previously, the number of catalog cards needed (4.5) for a title new to a branch was produced by use of the multilith.

Now, with the book catalog, with a maximum of two cards needed for a title new to a branch but not the system, direct typing on catalog card stock is more efficient.

5. Card distribution

Time spent distributing catalog cards to branches was probably decreased slightly, since there are fewer cards to handle than previously. Now a maximum of two cards is sent to a branch with each title, and under the card catalog system an average of 4.5 cards per title were sent. However, there was no satisfactory way to determine the time spent sorting cards and distributing them under either the book catalog or card catalog system. The labor cost of these items is included in the total labor cost for the Technical Services Department. Multilith supplies are not included, because so little change occurs.

The actual figures in Table "A" are based on the following statistics: In 1964-65, the system added 10,511 titles and 135,331 volumes, and in 1965-66, 8,245 titles and 93,122 volumes were added; this was a 22% decrease in titles added and a 31% decrease in volumes added. This decrease should help to explain why in the yearly increased or decreased cost (due to the book catalog)

column, a yearly decrease in total cost appears, but an increase is shown per title and per volume. Labor for the two-year period, taking into consideration the various pay rates, was costed as $1.50 per hour for clerical and $3.40 per hour for professional work. Also, while staff in the department decreased, normal raises in pay and promotions caused the salary level to increase.

An addition to the central operation was the source document file. This file is a supplement to the original file of 56,000 entries in the basic book catalog and is maintained for the use of the contractor producing the book catalog. It consists of titles new to the system since July 1965. During the year 1965-66, 8,245 cards were filed at an average rate of .4 minute per card. These cards were then revised and proofread (.75 minute per card) to ascertain whether the information could be fed into the computer without any problems. The filing was costed at $1.50 per hour and the revising and proofreading at $3.40 per hour.

The cost of the catalog card stock decreased because the average 4.5 cards per new title to a branch were reduced to 2 cards per new title and in some cases only a shelf list card was necessary. This is also reflected in the reduction of time required for use of the multilith machine to produce the cards.

The book catalog has produced no change in the time required to catalog and classify a book.

The total cost in the Technical Services Department does not provide a true picture of the year 1964-65 because some of the items listed in Table "A" are also included in Table "E", Creation of a Book Catalog. The transferral of holdings, the editing of entries, and a part (undetermined) of the consultations with Documentation, Incorporated took place in the year 1964-65. If these labor costs are taken into consideration, the card catalog cost could decrease as much as $.75 per title and $.06 per volume. The total cost in-

crease or decrease includes the card catalog stock used in both years.

As far as possible decimals have been rounded off to the nearest hundredth, and this creates a discrepancy when a balancing of figures is attempted.

Considering the figures given and the factors mentioned, an obvious rise in cost per volume processed occurred in the maintenance of Baltimore County Public Library's Central Technical Services Department in the first fiscal year of the operation of the book catalog. It appears, however, that the figures given in Table "A" may present a distorted picture. Since the major cost of a catalog operation is labor cost, performed by chiefly salaried employees, the fixed costs are high. The lower cost of cataloging per title for 1964-65 is almost certainly due to the greater number of titles handled. Similarly, these fixed costs remained at nearly the same level in 1965-66, when 22% less titles were processed.

The final figure in this table, which shows, on the face of it, a saving in total costs, has not been used in other tables, chiefly Tables "E" and "F", although costs incurred in the cataloging process included in this figure are included in these tables.

The chief conclusion here must be that although the type of catalog does change procedures to some extent in the central cataloging operation, costs change little. The small amount of extra expense on a continuing basis (as contrasted with the greater additional expenses connected with a changeover) is offset by a small saving in other central procedures. At least in this library, the overall costs have remained relatively stable in this department, as far as can be determined.

CENTRAL OPERATIONS - COMPARISON OF CATALOG COSTS, 1964-65 AND 1965-66

	Per Title Book Catalog	Per Title Card Catalog	Increase or Decrease	Per Volume Book Catalog	Per Volume Card Catalog	Increase or Decrease	1965-66 Annual Cost Book Catalog	1964-65 Annual Cost Card Catalog	Annual Increase or Decrease
Labor Costs									
Catalog Maintenance									
Filing (author, title, subject, class)				No change					
Source document file	.01	-	+ .01	.001	-	+ .001	82.46	-	+ 82.46
Withdrawing (author, title, subject, class)				No change					
Source document file				None to date					
Reviewing and proofreading cards									
Source document file	.04	-	+ .04	.004	-	+ .004	350.54	-	+ 350.54
Card Production									
Multilithing	.05	.09	- .04	.004	.007	- .003	397.00	930.00	- 533.00
Typing mats	.04	.10	- .06	.004	.007	- .003	355.73	1,008.36	- 652.63
Typing card headings				No way to determine					
Card distribution				No way to determine					
Other Labor Costs (cataloging, typing, etc., not directly attributable to form of catalog	9.29	7.81	+ 1.38	.787	.606	+ .181	75,752.80	82,238.02	- 6,485.22
Total Labor Costs	9.43	8.00	+ 1.43	.80	.62	+ .18	76,938.53	84,176.38	- 7,237.85
Supply Costs									
Card Stock	.14	.19	- .05	.01	.02	- .01	1,103.19	2,069.04	- 965.85
Multilith Mats				No way to determine					
Total Supply Costs	.14	.19	- .05	.01	.02	- .01	1,103.19	2,069.04	- 965.85
TOTAL - ALL COSTS	$ 9.57	$ 8.19	+$ 1.38	$ .81	$ .64	+ $ .17	$ 78,041.72	$ 86,245.42	-$8,203.70

Branch Operations

The branch operation as presented in Table "B" concerns only the cost of operations as affected by the book catalog, but no figure is given for the cost of maintaining the shelf list because this operation has not changed.

In order to show a truer cost comparison of maintaining card files in the branch, the card catalog maintenance costs and the orders received file costs are based on the total number of titles new to individual branches in 1965-66. A title new to the system would here be counted the number of times it was new to individual branches.

From statistics taken in 1964-65, it was determined that the average time to file and revise 3.5 catalog cards (average number, minus shelf list card, of cards per new title) is 4.55 minutes. Using this figure it was determined that 4,246 hours were spent filing catalog cards for approximately 56,000 titles new to individual branches throughout the system at a cost of approximately $2.00 per hour, because of the varying pay rates of the clerical, library aide and professional staff members doing the work.

The same statistics also provided information about the time spent typing headings on catalog cards, which was averaged at 1.35 minutes per new title (2.5 catalog cards excluding main entry), or 1260 hours for the approximately 56,000 titles new to branches throughout the system.

It was also determined that the time required for each set of 3.5 catalog cards (average set per new title) pulled from the catalog was 2.2 minutes, but an annual cost could not be determined because the withdrawal of last copies in 1965-66 was so sporadic that no meaningful figures could be found. See note in Table "B".

The orders received file came into being with the book catalog. Each title new to a branch arrives with two cards, the shelf list card and the orders received file card, coded to show future supplement in which the title

will appear. Because the book catalog is brought up to date every two months, an orders received file is maintained at the reference desk in order to provide up-to-date information about branch holdings, and when each new supplement arrives, the orders received file must be weeded by pulling all the titles found in the supplement.

In 1965-66 approximately 56,000 titles were new to the individual branches, and nearly all of these titles would have orders received cards to be filed and pulled. It takes .13 minutes to file a card and .16 minutes to pull a card; therefore 121.1 hours a year were spent filing and 149.3 hours were spent pulling cards. Some branches designate the filing and pulling as a clerical routine, and some designate it as a professional routine; for this reason the costs of filing and pulling cards in the orders received file is figured at $3.00 per hour.

In the general branch operation, a definite saving occurs because of the book catalog.

TABLE "B"

BRANCH OPERATIONS - COMPARISON OF ANNUAL CARD AND BOOK CATALOG COSTS

	Cost Per Title Book Catalog	Cost Per Title Card Catalog	Increase or Decrease	Cost Per Volume Book Catalog	Cost Per Volume Card Catalog	Increase or Decrease	Total Annual Increase or Decrease
Filing in card catalog	-	1.03	- 1.03	-	.10	- .10	- 8,492.00
Filing in shelf list	No change						
Typing card headings	-	.22	- .22	-	.02	- .02	- 1,890.00
Pulling catalog cards	No way to determine*						
Pulling shelf list cards	No change						
Orders received file - filing, pulling, checking	.10	-	+ .10	.01	-	+ .01	+ 840.00
TOTAL COSTS	$ .10	$ 1.25	-$ 1.15	$ .01	$ .12	- $ .11	- $9,542.00

* Pulling cards from branch catalogs when the last branch copy is withdrawn is obviously a cost item. Unfortunately, no records were kept which enabled this figure to be determined. This cost is, of course, non-existent in the use of the book catalog.

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Establishment of Card Catalogs in New Agencies

Because of the book catalog, it was not necessary to establish three branch card catalogs in 1965 and 1966. The cost of the establishment of catalogs in new agencies (Table "C") is based upon the cost of establishing a card catalog in each of three new agencies, one of which opened in December 1966, while two others are in various stages of completion. In November 1966 there was a total of 112,545 volumes ready to be shelved when the new agencies opened. This means approximately 67,700 titles which would need catalog cards multilithed, headings typed, filed, and housed (or an additional 236,950 cards. The filing would consume 5,134 hours, at $2.00 per hour, and the typing would consume 1,523 hours, at $1.70 per hour. The reduction of cards used per title with the book catalog would be 3.5 and this decrease would also show in the use of the multilith machine. The cost of the card catalog cabinets is $7,166. These costs are eliminated by the book catalog.

For a new agency, the single cost generated by the book catalog is the price of the book catalog tables, because the orders received file is gradually established after the branch opens, and only new titles received at the branch after it opens are filed. Thus, this presents no filing problem prior to the opening of the branch.

In this area, the book catalog provides a definite saving, and at least in the Baltimore County Public Library, a continuing saving over the years to come. The building program of the library, both in physical facilities and in collections, has made this saving in time, expense and trouble, a major factor.

TABLE "C"

COSTS - ESTABLISHMENT OF CATALOGS IN THREE NEW AGENCIES

	Cost Per Title Card Catalog	Cost Per Volume Card Catalog	Total Costs 3 Agencies 67,700 Titles
Card Production	.05	.03	3,181.90
Filing In Catalog	.15	.05	10,268.00
Typing Card Headings	.04	.02	2,589.10
Card Catalog Cabinets			7,166.00
Book Catalog Tables			- 1,260.00
TOTAL COSTS			$ 21,945.00

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Creation of a Union Card Catalog

One of the chief reasons given for the adoption of a book catalog in this library was to make available in each branch a union list of the entire system's holdings. With no central library existing or contemplated, no central resource center on all subjects was available; the considerable resources of the system as a whole, it was felt, would serve the public well if a union list were created.

To have created a union card catalog instead of the union book catalog would have involved considerably more expense. The cost to the Technical Services Department would not have increased much, but the cost of the branch operation would have increased greatly.

A probable procedure for the Baltimore County Public Library to have followed would have been:

1. To type multilith mats for each author, title and subject entry for each of 56,000 titles to be included in the union list. This would involve 4,900 hours of labor to type the 196,000 mats (3.5 per title), but it would eliminate typing catalog card headings for each title in each of the sixteen branches.

2. To have duplicated these cards (approximately 2,940,000) and then to have sorted and distributed these cards to the branches. While there is no figure to represent the time spent sorting and distributing them, the time spent running the multilith, including the twenty hours for setting up and cleaning, is about 1,686 hours.

3. Filing in the card catalog in all branches. To file all the necessary cards would take approximately 4246.7 hours in each of the fifteen branches at a cost of $2.00 an hour for the filing and revising.

According to the number of card catalog cabinets in use housing the

central union list, each branch would need at least five 62-drawer catalogs. With the number of card catalogs available in each branch at that time, it would probably average about three new cabinets per branch.

The cost of maintaining a shelf list has not been considered, because each branch would continue to maintain a shelf list of its own holdings and this would present no change. Also, the cost of the card catalog cabinets does not take into consideration separate catalogs for the adult and juvenile departments.

In addition, the union card catalog would eliminate the availability of a union list in public schools because of the prohibitive price of establishing one in each of the 135 schools which now have the book catalog.

Since the possibility of creating a union card catalog for each branch was never seriously considered because of the expense, any theoretical cost savings by utilizing a book catalog instead of a card catalog are not considered in Table "F".

TABLE "D"

COST OF CREATION OF UNION CARD CATALOG FOR EACH BRANCH

	Cost Per Title	Total Cost
Central Operations		
Card Stock	.13	8,434.40
Labor For Reproduction	.05	2,529.00
Mats	.03	1,894.67
Preparation Of Mats	.13	7,350.00
		20,208.07
Branch Operations		
Filing In Catalog	2.27	127,380.00
Typing Card Headings	Not necessary	
Cabinets	.62	34,875.00
		162,255.00
TOTAL COST - ALL OPERATIONS		$ 182,463.07

Note: This cost might be lower than estimated here because a project of this size would probably be systematized, using equipment not economical in day-to-day operations, on which these estimates are based. The total cost would, however, remain considerable.

Creation Of A Basic Book Catalog

The creation of the basic catalog involved many different costs. Some of the items listed in Table "E" require no additional explanation, but the following items do require more information:

1. The proofreading of the print out from the computer was an expense to the central operation and was done by staff members working at the cost of $1.50 per hour for clerical help, and $3.40 per hour for professional and library aide help. The time required to proofread the 56,000 titles entered in the basic catalog was 426.3 hours for professionals and library aides and 2074.1 clerical hours.

2. The accuracy check involved selecting 1,000 shelf list cards at random and comparing them with the author, title, and subject entries in the book catalog, in order to check the final product.

3. Originally, the book catalog listed branch holdings under each title, and in order for the information to be available to Documentation, Incorporated, the branch holdings had to be transferred to the cards in the source documents file. This consumed a total of 2,920 hours of clerical time at $1.50 per hour and 730 hours of professional time at $3.50 per hour. Inclusion of holdings was discontinued after issuance of the basic catalog for various reasons.

4. Because part of the basic cost was figured on the number of entries and the length of the entry, it was necessary to eliminate all unnecessary words in an entry and to eliminate some entries. One way in which this was done was by removing sub-titles not needed to explain the title and eliminating analytic notes from the tracings. This took six weeks work by a professional.

5. Because of the change from a card catalog to a computerized book catalog, approximately 544 hours were spent in consultations with representatives of Documentation, Incorporated, discussing the project. The Baltimore County Public Library staff members involved were paid at the average rate of $4.25 per hour.

6. Soon after the basic catalog was issued, it became evident that play analytics, which had been dropped when converting to the new catalog, were needed, at least for three-act plays in collections. A play index is now being compiled, and at present approximately 1,000 hours have been spent on this project at a cost of $3.50 per hour, and the project is not yet complete.

7. The card catalog cabinets that were removed from the branches met various fates. Some of them are still in use as shelf list cabinets in new agencies; some were stored for future use; and some were sold. Since any of these uses was a savings, the cost was deducted from operational costs to create the book catalog. The figure is modest, however, and reflects depreciated value rather than replacement value.

TABLE "E"

COST OF CREATION OF BASIC SET, BOOK CATALOG

Operational Costs	
Proofreading	$ 4,560.57
Accuracy Check	137.50
Transferral of holdings to source document file	5,767.00
Entry editing	900.00
Consultation with contractor	2,312.00
Play index (lack of analytics)	3,500.00
Book catalog tables	3,400.00
Sale and re-use of cabinets	- 5,200.00
Sale of book catalogs	- 1,521.00
Contractual Costs	
Basic set - Documentation, Inc., all costs (250 copies)	31,651.01
	$ 45,507.08

Costs of Initiation and Maintenance of the Book Catalog

The estimated annual additional cost of the book catalog, over and above the card catalog system previously used, is shown in Table "F".

The basic catalog is issued every two years as the plan is now established. Currently it is updated by ten bi-monthly cumulative supplements which are issued during the two-year period. At the end of the first year after the issuance of the basic catalog, a hard-bound supplement is issued. The supplements to the juvenile catalog are issued quarterly, and the juvenile supplement is paper-bound.

To arrive at an estimated annual cost to maintain the book catalog, the payments to the contractor for input, page production and binding for both the first basic catalog and the 1965-66 supplements were added to the additional costs incurred by the library central operation. Subtracted from this figure were the savings incurred by the elimination of the need to create card catalogs for the three new agencies (Table "C") and to file cards in the branches (Table "B"). Not included are any theoretical savings from Table "D".

It is difficult for many reasons to estimate the continuing cost of a book catalog over the years. Several points should be made, however, in any consideration of this continuing cost:

1. The basic catalog of 56,000 titles cost the library considerably less than it probably should have, mostly because of an erroneous estimate of the labor involved by the contractor. However, the effort involved a great deal of work by both the contractor and the library in what may perhaps be best described as basic research in the production by computer of a book catalog. This cost of research, borne by both Documentation, Incorporated and the library, was a good deal higher than expected, and all concerned have regretted that a research grant to bear this cost was neither applied for nor obtained from any source. Because of the terms of the

contract, the lion's share of this research cost was borne by the contractor rather than by the library. The contract was renegotiated after the issuance of the basic catalog, and this explains one reason for a higher per title cost for the supplements. Another is, of course, the cumulative factor of the supplements and the increased page production cost resulting.

2. The continuing cost will be considerably reduced by the lack of necessity for the library's central operation to perform many of the costly tasks listed in Table "E", most of which are non-recurring expenditures.

3. The continuing cost may well be increased by the increased cost in labor and materials, changes in information included or in format, etc. Decreases may come about if cooperation with other library systems is instituted, either through a cooperative processing center or by arrangements through the contractor. Both lines of inquiry are now being pursued.

TABLE "F"

ADDITIONAL COSTS OR SAVINGS ATTRIBUTABLE TO BOOK CATALOG FOR TWO YEARS, 1965-1966

	Contract Costs	Operational Costs	Total Costs
Basic catalog - 56,000 titles	31,651.01	13,856.07	45,507.08
Supplements - 20,717 titles	42,986.65	1,036.00	44,022.65
Catalogs for new agencies		- 21,945.00	- 21,945.00
Branch operations (2 years)		- 19,084.00	- 19,084.00
	$ 74,637.66	-$ 26,136.93	$ 48,500.73

Total annual additional cost of book catalog: $24,250.37

Total annual additional cost per branch (16): $ 1,515.64

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PUBLIC SERVICES

There is little doubt that the form of the catalog of a library's holdings has an impact upon the cost of provision of public service in the branches. Measurement of these costs is difficult in some areas, impossible in others. The first part of this section attempts to measure the cost in the areas of reserves, intra-library loan, supplies, and catalog searches where it has been fairly obvious that the book catalog has had an effect. The second part gives consideration to these factors for which no accurate method of assigning costs could be determined.

The fact that the book catalog is a union list of the system's holdings, while an advantage to the reader, is a factor which has increased costs. A reader seeing a book listed in the catalog, when it is unavailable for any reason, is much more likely to reserve that title. These reserves have radically increased with the book catalog since many more titles are displayed than would be true if a card catalog of that individual branch only were available.

Increased reserve costs exist not only when the branch owns the book, but also when a request is made for a book located at another branch by intra-library loan.

By using circulation figures and total reserve figures, it was determined that an estimated increase of 51.1% occurred in reserves taken. For the purpose of this study, it was assumed that there is a constant ratio of the number of reserves taken to the circulation count in any given year.

Included in Table "G" is the cost for additional time spent in catalog searches in the book catalog over and above searches in the card catalog. This calculation, while taken and recorded here, is subject to many interpretations as noted under "measurable costs" and was not finally considered as an extra cost factor to be used in Table "F".

The reserves and catalog searches are the only items relating to public service for which an estimate of cost could be given, and both items cannot be clearly taken as absolute increases, catalog searches for the reasons mentioned above and reserves, because they are a factor of increased service as well as increased cost.

Measurable Costs

Reserves

The cost of reserves as shown in Table "G" is divided into three parts: the work in the branch, the work in the central offices, and the cost of supplies.

Branch Operations

1. Reserves are taken at the reference desk by a professional librarian or library aide paid at the average rate of $3.25 per hour. The basic work involved in taking a reserve is filling in information on a post card and checking the book catalog for the call number if it is owned by the system. The increase in reserves taken attributed to the book catalog was approximately 10,348. Of these, approximately 1,725 were not found in the book catalog. Since this involves searching in Books In Print or other bibliographies to verify author and title, the average time per reserve was estimated at 5 minutes. The remaining reserves (8,623) were found in the book catalog and took approximately 1.25 minutes to complete. In the 1965-66 period an estimated 323 extra hours were spent taking reserves.

The additional time necessary for catalog searches con-

nected with reserves is not included here, as it is included in the estimated extra cost of all catalog searches throughout 1965-66.

2. The remaining clerical work includes checking reserves found in the book catalog against the shelf list to determine which titles are owned by the branch and which titles must be sent to central for intra-library loan from other agencies, since there is no central book collection. All titles for intra-library loan must be typed on appropriate forms. The shelf list check was a procedure instituted because of the book catalog; therefore, the total number of reserves found in the book catalog should be checked this way. However, in practice, roughly 30% of the reserves taken are known as owned by the branch and no checking is done. In 1965-66 approximately 24,900 reserves were checked in the shelf list at .88 minutes per item, or 365.2 hours a year.

3. Filling the daily requests that come from central, either reserving a book for another branch or sending the book requested, has also been increased. An average of five branches search, and since each search takes an average of 1.5 minutes, during the year 1965-66, the increase in these requests because of the book catalog totaled an estimated 5,657 items, which involved approximately 151.5 hours at $1.70 per hour.

4. In addition to the daily requests, standing requests not yet filled must be considered. Each branch searches its

shelves weekly in an attempt to fill these requests, and in 1965-66 the number of these searches made increased by approximately 6,937. This involved a time increase of approximately 740 hours (.64 minutes per item) at an average clerical pay rate of $1.70 per hour.

The increased time of 690 hours (4 minutes per item), over and above the steps listed, needed to complete the reserve procedure, was caused by the additional 10,348 reserves attributed to the book catalog.

Central Operations

The increased work in the central intra-library loan department attributed to the book catalog was estimated at 200 clerical hours and 352 professional hours. The average clerical pay rate in the department was $1.60 per hour and the average professional pay rate was $3.45 per hour.

Other than the increased work load attributed to the book catalog, there were no changes in the work done by the intra-library loan department in the central offices.

Supplies

The increase in reserves, of course, caused an increase in reserve supplies, and the cost of reserve postals, title request forms, special circulation cards, and subject request forms attributed to the book catalog was estimated at $969.44.

Catalog Searches

An attempt to determine the number of catalog searches made in the years 1964-65 and 1965-66 was done by having three

branches maintain a count of all catalog searches (and whether the search was an author, title, or subject search) for a three-month period. From these figures the number of catalog searches for a year was projected. Since this was done in 1966-67 year, the projected figures for the catalog searches were adjusted according to the circulation done in 1964-65 and 1965-66. Again, it is assumed a direct proportion of catalog searches to circulation exists. In order to determine the time consumed by these searches, three separate packs of 100 cards each were prepared by choosing 100 authors and 100 titles at random from Books In Print and the other pack of cards was prepared for subject searches by choosing the subjects at random from the Subject Guide To Books In Print. These authors, titles and subjects were then searched in a card catalog not yet dismantled and in the book catalog and its two supplements. Staff were instructed to follow the steps they would use when answering a question for a patron. The following figures are the result of these searches:

	Card Catalog	Book Catalog
100 author searches	47 minutes	64 minutes
100 title searches	50 "	50 "
100 subject searches	77 "	148 "

The reasons for the extra time taken for catalog searches in the book catalogs can and have been a subject of interpretation and disagreement. In the sample search, the following factors may well have distorted the results:

1. The card catalog used as a check was the largest and

oldest in the system, and had a number of "see references", few of which appeared in other branch catalogs, particularly those of newer branches. If another branch catalog had been used, results may have differed.

2. The divided rather than dictionary approach of the book catalog will sometimes offer fewer aids to a search.

3. The book catalog does not show tracings in the entry.

4. The book catalog's accuracy in the first basic was considerably less than perfect, especially in the United States entries. The second basic, now issued, is considerably more accurate because of a change in programs and improvements in input and editing.

In any event, the extra time taken in catalog searches has resulted in an estimated total annual cost of $794.00, a small expenditure indeed when compared to the cost of inclusions of aids in catalog searching in the book catalog. Because of the difficulty of evaluating the accuracy of this cost, however, and the apparent minimal impact of the cost upon the total cost of the catalog, it has not been included in Table "F".

Non-Measurable Considerations

Since the book catalog in Baltimore County Public Library is designed as a finding list rather than a bibliographic tool, as previously explained, it contains a lesser degree of bibliographic information than do many card catalogs. In order to provide additional bibliographic information for

students or other persons needing it, it is necessary to search other bibliographic tools such as Books In Print and the Cumulative Book Index.

Very few books have entries in the book catalog under the editor. This naturally limits the accessibility of some titles to the general public using the catalog, and consequently the professional staff must rely more often on published bibliographic tools.

An interesting point which might be made here is that, according to a survey* recently completed of the use of metropolitan Maryland libraries, 4,311 adult readers in Baltimore County made relatively little use of the catalog, in their total use of the library. In answer to the question, "What use did you make of the library while you were here today?", the 4,311 readers checked 7,100 answers, only 10.46% of which were in the "library catalogs" column. Answers from other libraries surveyed were similar, giving figures such as 11.3%, 11.6% and 14.04%, with no discernable relation as to whether the libraries had card catalogs, book catalogs, little or a great deal of displayed bibliographical information.

Analytics for 3-act plays not present in the book catalog are another drawback to rapid service, for not only is it impossible for a patron to satisfy his need by himself without checking the contents of the collections on the shelf in areas such as plays, but also the library staff finds it necessary to spend time searching play indexes.

In the Baltimore County Public Library, the book catalog is believed to be physically more accessible than the card catalog. In a questionnaire sent to branches in the system, two-thirds of the staff felt this

* Bundy, Mary Lee - "Metropolitan Public Library Users: A Report of A Survey of Adult Library Use in the Maryland Baltimore-Washington Metropolitan Area" - Preliminary Report, 1967.

to be true, and its availability on the reference desk has saved the staff many steps. Also, the book catalog can be carried to the shelf by patrons or staff, thus eliminating the necessity of copying the information before going to the shelf.

Copies of the book catalog are available in all Baltimore County Schools so that teachers can consult it before making an assignment, and students can discover whether or not the titles they need are owned by the library.

Probably the most important asset of the book catalog is its union list feature, an important factor in this library. While there was some apprehension that the great number of titles displayed in the book catalog would prove exasperating to readers using small libraries, this has not proved to be the case.

Some additional use of lesser used, more specialized books has been observed, since the titles are now displayed in the book catalog.

TABLE "G"

PUBLIC SERVICE COSTS AFFECTED BY BOOK CATALOG

	Additional Annual Costs Attributed To Book Catalog	
Reserves		
Branch Operations		
Requests from intra-library loan (daily)	$ 275.55	
Reserves from intra-library loan (searched weekly)	1,258.00	
Additional time checking shelflist	620.84	
Additional time in searching catalog - Included below:		
Taking reserves		
Professional labor	1,049.75	
Clerical labor	1,173.00	
Central Operations		
Professional and clerical labor	1,279.46	
		5,656.60
Supplies		
Request forms, postals, etc.	495.38	
		495.38
Catalog Searches		
Professional labor	644.00	
Clerical labor	150.00	
		794.00
T O T A L - - - - - - - - - - - - -		$ 6,945.98

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SUMMARY AND CONCLUSIONS

In many ways, this study has been a difficult one to prepare, because the statistics on which it is largely based were gathered after the fact, as it were, rather than determined before a change in procedure was instituted. This difficulty was foreseen before the study was attempted, however, and the study was undertaken under the premise, expressed by the grantor, that "even crude measures have their uses."

The following major conelusions are apparent, based on the investigations, statistics gathered, and extrapolations made in the report:

A. The adoption of the book catalog has proved an added expense to the Baltimore County Public Library, in comparison with the card catalogs in use until mid-1965. This added cost has amounted, over the first two years, to an expense equal to approximately 1% of the operating budget, or about $1,500 per agency.

B. Continuation, or maintenance costs of the book catalog, as contrasted with the card catalog, are difficult to predict, because of unknown future rises in costs in the contract with the firm producing the book catalog. It is evident, however, that even with increased contract costs over the next two years, total costs should remain stable or decrease, because of the elimination or reduction of many of the start-up costs incurred initially by the library.

C. The most valuable service accretion has been the presence, in the book catalog, of a union list of the library's holdings in each agency, and the concomitant greater use of the collection when considered as a whole. This added service has been evident when the great increase in intra-library loan has been considered. The fact that intra-library loan requests rose 51% in 1965-66

beyond the normal growth in proportion to circulation growth for the same period, points out that another factor than circulation caused the rise in intra-library loan requests. In 1964-65, the loans increased about 6%; in 1965-66, they increased about 72%. Circulation statistics themselves did not rise more than the usual amount of annual increase, which over the past five years has averaged about 10% per year. This would seem to show that no previously operating factor had changed. The introduction of the book catalog is the only factor new to the Baltimore County Public Library system in 1965-66. Its advent did not affect the circulation statistics, as we have seen. Since the book catalog is the only new factor, we must conclude that its presentation of so many more titles to the patron resulted in the 51% rise in intra-library loan requests over normally expected growth. Since circulation itself did not rise significantly, it is reasonable to assume that, although the numbers of books circulated by patrons were not affected by the book catalog, the access to more titles afforded by the book catalog led to more specific requests, requests relating more closely to the patron's needs. Thus the 51% increase in intra-library loan requests over normal intra-library loan growth represents a significant improvement in public service.

D. The presence of the book catalog in all of Baltimore County's 135 public schools, as well as in many other locations, is and will be a continuing asset to which no savings can be ascribed. Costs are minimal, when only a greater number of copies of an existing catalog are needed. This asset has not been fully exploited.

E. The relative lack of bibliographic information in the book catalog as compared with the card catalog, while apparently not critical in general public use, has been a disadvantage, at least to some extent,

to librarians serving the public. Inclusion of the bibliographic information to the extent in many card systems would have been prohibitive in cost. This was a decision based not only on cost, however, but on judgment in relation to use by professional staff.

F. No comparisons have been made concerning the costs of production of this book catalog with other methods of production, such as sequential camera, tabulating equipment, etc. It is fairly evident, however, that the fact that the file now exists on magnetic tape will be of some advantage when costs of production are compared, especially for continuation over the years.

G. The full possibilities of the book catalog as produced by computer have not been explored, and the catalog is not part of an integrated system which might have included other library functions. It is however, adaptable to such use in the future.

In this same vein, future use may well be made of the tape file for production of limited or specialized finding lists for such use as catalogs of popular and recent books for mail order, etc.

H. Costs of input for the book catalog, as well as cataloging costs as shown in Table "A", can and may be drastically reduced by co-operation with other libraries. The tape file, which now contains some 76,000 titles, can be of great and highly economical use by some other library wishing to produce a catalog similar to Baltimore County's. Acceptance of this library's classifications for individual titles and the relative lack of bibliographic information may or may not be deterrents to acceptance, depending upon another library's judgment as to the use/cost factors.

APPENDIX

940.545
M Morison, Samuel Eliot
Battle of the Atlantic: September 1939-May 1943. Little, c1947.
(History of United States naval operations in World War II. v.1)

6 1. World War, 1939-1945--Atlantic Ocean
2. World War, 1939-1945--Naval operations
3. T 4. Series

940.545 WORLD WAR, 1939-1945--ATLANTIC OCEAN
M Morison, Samuel Eliot
Battle of the Atlantic: September 1939-May 1943. Little, c1947.
(History of United States naval operations in World War II. v.1)

6 1. World War, 1939-1945--Atlantic Ocean
2. World War, 1939-1945--Naval operations
3. T 4. Series

940.545 WORLD WAR, 1939-1945--NAVAL OPERATIONS
M Morison, Samuel Eliot
Battle of the Atlantic: September 1939-May 1943. Little, c1947.
(History of United States naval operations in World War II. v.1)

6 1. World War, 1939-1945--Atlantic Ocean
2. World War, 1939-1945--Naval operations
3. T 4. Series

History of United States naval operations
940.545 in World War II. v.1
M Morison, Samuel Eliot
Battle of the Atlantic: September 1939-
May 1943. Little, c1947.
(History of United States naval operations
in World War II. v.1)

6 1. World War, 1939-1945--Atlantic Ocean
2. World War, 1939-1945--Naval operations
3. T 4. Series

Battle of the Atlantic: September 1939-
940.545 May 1943.
M Morison, Samuel Eliot
Battle of the Atlantic: September 1939-
May 1943. Little, c1947.
(History of United States naval operations
in World War II. v.1)

6 1. World War, 1939-1945--Atlantic Ocean
2. World War, 1939-1945--Naval operations
3. T 4. Series

MORGAN, WILLIAM JAMES
Captains to the northward. 1959
65015658 973.3 M
O S S and I. 1957.
66018157 940.5486 M
MORGAN, WINONA LOUISE
Family meets the depression. 1939
64046336 392.3 M
MORGENSTERN, CHRISTIAN
Galgenlieder. 1963
64046337 837 M
MORGENSTERN, GEORGE EDWARD
Pearl Harbor. 1947
64046338 940.54 M
MORGENSTERN, OSKAR
On the accuracy of economic observations. 2nd ed. rev. 1963
64046339 330.18 M
Question of national defense. 1959
64046340 355 M
MORGENSTERN, SOMA
In my father's pastures. 1947
64046341
Son of the lost son. 1946
64046342

MORGENTHAU, HANS JOACHIM
Crossroad papers. 1965
65017251 308 M
Dilemmas of politics. 1958
64046343 341 M
Politics among nations. 3rd ed. 1960
64046344 341 M
Politics in the twentieth century. 1962 3v.
64046345 320.1 M
Purpose of American politics. 1960
64046346 973.91 M
Vietnam and the United States. 1965.
66012708 327.597 M

MORHOLT, EVELYN
Sourcebook for the biological sciences. 1958
64046347 371.3 M
MORI, OSAMU
Typical Japanese gardens. 1962.
66017103 712 M
MORIARTY, PHILIP
Springboard diving. 1959
64046348 797.2 M
MORIER, JAMES JUSTINIAN
Adventures of Hajji Baba of Ispahan. 1937
64046349
MORIN, RELMAN
East wind rising. 1960
64046350 950 M
MORISON, DAVID L.
U S S R and Africa. 1964
65021189 327.47 M
MORISON, ELTING ELMORE
American style. 1958
64046351 917.3 M
Men, machines, and modern times. 1966
66019686 601 M
Turmoil and tradition (H L Stimson). 1960
64046352 B S
MORISON, LUELLA JOSEPHINE
Steppingstones to professional nursing. 3rd ed. 1960
64046353 610.7 M
MORISON, NATHANIEL HOLMES
Peabody Library. 1954
64046354 Ref 021 M
MORISON, SAMUEL ELIOT
Admiral of the ocean sea. a life of Christopher Columbus. 1942
64046355 B C
Aleutians, Gilberts and Marshalls; June 1942-April 1944. 1951 (History of United States naval operations in World War II, v.7)
64046356 940.545 M
Atlantic Battle won, May 1943-May 1945. 1956 (History of United States naval operations in World War II, v.10)
64046357 940.545 M
Battle of the Atlantic: September 1939-May 1943. 1947 (History of United States naval operations in World War II. v.1)
64046358 940.545 M
Breaking the Bismarks Barrier: 22 July 1942-1 May 1944. 1950 (History of United States naval operations in World War II, v.6)
64046359 940.545 M
Builders of the Bay Colony. Rev. and enl. c1930
65013249 974.4 M
By land and by sea. 1953
64046360 973.04 M
Caribbean as Columbus saw it. c1964
65013250 972.902 M
Christopher Columbus, mariner. 1955
64046361 B C
Coral sea, Midway and submarine actions: May 1942-August 1942. 1949 (History of United States naval operations in World war II. v.4)
64046362 940.545 M
Freedom in contemporary society. 1956
64046363 323.4 M
Growth of the American republic. 1962 2v.
64046364 973 M 1962
Growth of the American republic. 4th ed. 1950
64046365 973 M 1950
Invasion of France and Germany, 1944-1945. 1957 (History of United States naval operations in World War II. v.11)
64046366 940.545 M
Journals and other documents on the life and voyages of Christopher Columbus. c1963
65013251 970 M
Leyte, June 1944-January 1945. 1958 (History of United States naval operations in World War II. v.12)
64046368 940.545 M
Liberation of the Philippines; Luzon, Mindanao, the Visayas, 1944-1945. 1959 (History of United states naval operations in World War II, v.13)
64046369 940.545 M
Maritime history of Massachusetts, 1783-1860. 1961.
66013675 382.09 M
Nathaniel Holmes Morison, 1815-1890. 1957
64046370 Ref 021 M
New Guinea and the Marianas, March 1944-August 1944. 1953 (History of United States naval operations in World War II, v.8)
64046371 940.545 M
Operations in North African waters, October 1942-June 1943. 1950 (History of United States naval operations in World War II. v.2)
64046372 940.545 M
Oxford history of the American people. 1965
65017252 973 M
Portuguese voyages to America in the fifteenth century. 1940
66022593 973.16 M
Rising sun in the Pacific: 1931-April 1942 1948 (History of U.S. naval operations in World War II, v.3)
64046373 940.545 M
Sicily--Salerno--Anzio: January 1943-June 1944 1954 (History of United States naval operations in World War II. v.9)
64046374 940.545 M
Sources and documents illustrating the American Revolution 1764-1788. 2d ed. 1929
64046375 973.3 M
Spring tides. 1965.
66010949 797.124 M
Strategy and compromise. 1958
64046377 940.54 M
Struggle for Guadalcanal: August 1942-February 1943. 1949 (History of U.S. naval operations in World War II, v.5)
64046378 940.545 M
Supplement and general index. 1962 (History of the United States naval operations in World War II, v.15)
64046379 940.545 M
Two-ocean war. 1963
64046380 940.545 M
Victory in the Pacific, 1945. 1960 (History

64022328 943.6 C

BATTLE OF MATAPAN
Pack, Stanley Walter Croucher 1961
64048874 940.545 P

BATTLE OF NEW ORLEANS
Childsey, Donald Barr 1961
64020215 973.5 C

BATTLE OF NORTH CAPE
Ogden, Michael 1962
64048312 940.545 O

BATTLE OF PLASSEY AND THE CONQUEST OF BENGAL
Edwardes, Michael c1963
65011964 954.14 E

BATTLE OF POINT PLEASANT
Simpson-Poffenbarger, Livia Nye 1909
64056159 973.3 S

BATTLE OF THE ALMA
Gibbs, Peter Bawtree 1963
64030071 947.07 G

BATTLE OF THE ATLANTIC
Macintyre, Donald George Frederick Wyville 1961
64042956 940.545 M

BATTLE OF THE ATLANTIC: SEPTEMBER 1939-MAY 1943
Morison, Samuel Eliot 1947
64046358 940.545 M

BATTLE OF THE BOOKS
Swift, Jonathan Gulliver's travels, A tale of a tub, The battle of the books 1950
64058746
Swift, Jonathan Tale of a tub, to which is added, The battle of the books and the Mechanical operation of the spirit 1958
64058752 827 S

BATTLE OF THE HUERTGEN FOREST
MacDonald, Charles Brown 1965
64042679 940.54 M

BATTLE OF THE LITTLE BIGHORN
Sandoz, Mari 1966.
66016893 973.82 S

BATTLE OF THE MARNE
Isselin, Henri 1965.
66014709 940.421 I

BATTLE OF THE NILE
Warner, Oliver 1960
64062523 942.07 W

BATTLE OF THE RIVER PLATE
Pope, Dudley 1956
64050519 940.545 P
Strabolgi, Joseph Montague Kenworthy, baron 1944
64058220 940.545 S

BATTLE OF THE V-WEAPONS, 1944-45
Collier, Basil 1964
65018199 940.54 C

BATTLE OF THE VILLA FIORITA
Godden, Rumer 1963
64030499

BATTLE OF THE WILD TURKEY
Johnson, Alvin Saunders 1961
64037084 S

BATTLE OF THE WILDERNESS
Schaff, Morris c1910
65013776 973.7 S

BATTLE OF TRAFALGAR
Taylor, A. H. 1950
66023166 940.27 T

BATTLE REPORT: ATLANTIC WAR
Karig, Walter 1944-1948
64037818 940.545 K

BATTLE REPORT: PACIFIC WAR: MIDDLE PHASE
Karig, Walter 1947
64037819 940.545 K

BATTLE REPORT: PEARL HARBOR TO CORAL SEA
Karig, Walter 1944
64037820 940.545 K

BATTLE REPORT: SELECTED POEMS
Shapiro, Harvey 1966
66020581 811 S

BATTLE ROYAL
Beamish, Tufton Victor Hamilton 1965
66023475 942.03 B

BATTLE STATIONS
Scoggin, Margaret Clara 1953
64054717 940.548 S

BATTLE: THE STORY OF THE BULGE

Toland, John 1959
64059983 940.542 T

BATTLEFIELD AND CLASSROOM
Pratt, Richard Henry 1964
66022797 970.5 P

BATTLES AND LEADERS OF THE CIVIL WAR
1956 4v.
64013870 973.7 B

BATTLES AND LEADERS OF THE CIVIL WAR (ABRIDGEMENT)
1956
64013869 973.7 B

BATTLES LOST AND WON
Baldwin, Hanson Weightman 1966
66019354 940.542 B

BATTLES OF THE BOER WAR
Pemberton, William Baring 1964
66022736 968.2 P

BATTLES OF THE CRIMEAN WAR
Pemberton, William Baring 1962
64049652 947 P

BATTLES OF THE ENGLISH CIVIL WAR
Woolrych, Austin H. 1961
64064951 942.06 W

BATTLES OF THE INDIAN MUTINY
Edwardes, Michael 1963
64025834 954 E

BATTLES THAT CHANGED HISTORY
Pratt, Fletcher 1956
65021283 355.4 P

BATTLESHIP SCHEER
Krancke, Theodor 1956
64039224 359.3 K

BAUDELAIRE
Baudelaire, Charles Pierre 1957
64013871 B B
Peyre, Henri Maurice 1962
64049951 841 B
Sartre, Jean Paul 1950
64053991 B B
Starkie, Enid 1958
64057451 B B

BAUDELAIRE, RIMBAUD, VERLAINE: SELECTED VERSE AND PROSE POEMS
Bernstein, Joseph Milton 1947
64014879 841 B

BAUHAUS 1919-1928
Bayer, Herbert 1938
64013936 707 B

BAUKUNST DER GOTIK IN EUROPA
Busch, Harald 1958
64018383 Ger 723.5 B

BAUKUNST DER RENAISSANCE IN EUROPA
Busch, Harald 1960
64018384 Ger 724.1 B

BAUKUNST DER ROMANIK IN EUROPA
Busch, Harald 1959
64018385 Ger 723.4 B

BAUKUNST DES BAROCK IN EUROPA
Busch, Harald 1961
64018386 Ger 724.19 B

BAUM WACHST IN BROOKLYN
Smith, Betty Wehner n.d.
64056460 Ger

BAY
Klingel, Gilbert C. 1951.
66011778 Md. 917.52 K

BAY AND RIVER, DELAWARE
Tyler, David Budlong 1955
64060672 917.48 T

BAY OF NAPLES
Otto-Wasow, Kurt 1960
64048750 914.57 O

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WORLD WAR, 1939-1945---NAVAL OPERATIONS, JAPANESE

The Book Catalog: Diving In

My family summers on an island off the coast of central Maine. When the time comes to go swimming, we go down to the small wharf in our bathing suits, sit on the steps leading down into the cold, cold water, and do a lot of staring. After a lengthy period, we dip one foot into the water, withdraw it quickly, and shudder. After more of this, combined with calls on those present to witness our bravery, we dive in.

It's a terrible shock to the system. The urge to clamber out immediately is overpowering. After a few moments, however, you like it immensely, and when you do climb out after swimming around for awhile, you may be a bit blue, but you feel totally refreshed. This feeling is so strong at times that great deeds, such as splitting a half cord of wood, are not only contemplated but even accomplished afterwards.

For the Baltimore County Public Library, the dive into the computer-produced book catalog aroused much the same feeling in our staff. With a grimace, we had read, or I should say glanced at, numerous articles on data processing for libraries over the past several years. A book catalog was, in itself, something we could, as librarians, understand, and we had decided on its definite advantages. But computers were something else again: we stared, we listened, we shuddered, and we dove into the project. It was a terrible shock to the system. But our staff has emerged with the feeling that the experience is worth the initial shock and that the final product will expedite the movement of books to readers —which is, after all is said, the only reason for the library's existence.

In comparison to most public libraries in the United States, the Baltimore County Public Library is a relatively young system, but it has become one of the largest in a very short span of time. While many libraries have undergone, or are undergoing, the throes of cooperation, consolidation and the like, in an effort to create systems efficient enough to serve adequately an expanding and better-educated people, we have benefited from an extremely advantageous political situation, peculiar to Maryland.

Baltimore County, which almost surrounds the city of Baltimore, and of which the city is not a part, has no incorporated towns, and all municipal services, including the library, are supported by county funds. While the Board of Trustees is appointed by the Governor, the library is a department of the county government. With the exception that we have no central library, the organization and operation of our county library system is identical to the large city system.

We serve 550,000 suburban residents, who demand good library service. The response to this demand has increased our operating budget from $350,000 to $1,822,000 in five years, and has thrust us into a building and book buying program which has increased our bookstock radically. Since there is no central library, the total book collection is distributed among fourteen branches, and no one collection holds a copy of each title in the system. Our bookstock has increased in five years from 170,000 volumes to 510,000, with a total of 131,000 books added in 1964, representing about 13,000 new titles. Book collections range from 13,000 volumes to 75,000. During 1965, construction will be proceeding on four libraries, ranging from two each of 25,000 square feet to one of 12,000 and one of 5,000 square feet.

By mid-1963, we had listened to enough reports about book catalogs at conferences and had seen enough to convince us that a book catalog was the answer to many of our problems—the sooner the better, considering our

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rate of growth. It was not obvious that book catalogs, per se, saved money; it was that, at least in our system, better service to readers would result. It was on this basis that we were able to convince the Board of Library Trustees and the county officials. At the same time, however, it was undeniable that with the present number of titles, which was relatively small in comparison with long-established libraries, and with a construction program which would necessitate a large investment in conventional card-storage equipment, certain financial economies would result from a book catalog. When we added to this the elimination of labor costs for catalog maintenance in our expanding branch programs, we felt that the expenditure for the adoption of the book catalog would be balanced to some degree.

The decision to produce a book catalog was thus for us a relatively easy one to arrive at. The decision as to the *method* of producing this catalog was another story altogether, and one which poses many problems to almost every library venturing forth on this road.

The administrative staff, greatly aided by Paula Kieffer, coordinator of technical services, enmeshed themselves in the literature. B. Frank Hemphill, the assistant county librarian, began investigating the varied methods of production. With their help, we were able to determine that most libraries were using one of three prevailing methods:

1. A system used by Montgomery County, Maryland, similar to that introduced by Los Angeles County, utilizing key-punched IBM cards, on which was punched the information to appear in the book catalog. A unit-record system in which the cards were fed into an IBM 407 tabulator and then printed by a conventional IBM print chain, the system was relatively inexpensive to their library because the county owned the equipment necessary. The most obvious disadvantage of this system to us was the appearance of the entries, which were all in upper case letters. The system is also considerably more rigid than if the information had been put on magnetic tape for computer sorting. It is not easily convertible, if at all, to later incorporation into a computerized system.

2. A system utilizing, on contract, a sequential camera, whereby information from our one union catalog would be transferred by a Varitype machine to IBM cards for rough sorting. After a fine sort, the cards would then be photographed by the sequential camera, the developed film cut into strips and page mats produced from the strips. This type of catalog, which has proved recently very popular among libraries, including those in our area, has a very attractive appearance, employing not only upper and lower case, but bold and light type and any other type which a Varitype machine can produce. The problem is its cost, especially considering the number of titles we wished to put into our first catalog, and the fact that, as far as filing is concerned, the method is essentially still manual. An experienced firm with a good reputation furnished a price quotation to us which, understandably, was much higher than the final method chosen.

3. A system utilizing the storage of the information from our catalog cards on magnetic tape, with input by either IBM punched cards or Flexowriter punched paper tape. The information would then be organized and sorted by a computer, with eventual printout by an IBM printer. This computer stysem had the advantages of ease and speed in updating the master for printout of cumulative issues.

Having determined this method to be the one best for our needs, we received several quotations from firms willing to take on the job, most of which had computers with idle time, but the final contract was given to Documentation, Incorporated, of Bethesda, Maryland. Price was, of course, a determinant, but this firm was also chosen because they had already demonstrated their experience in allied fields, and most important, they would utilize a 120-character print chain, which has both upper and lower case type.

In deciding on this method, we resolved to make the catalog as useful as possible to our readers by incorporating as many titles as possible. While it is much less complicated and costly a task to start a book catalog without including any titles other than current acquisitions, the library's readers must wait through a

period of some length before the catalog becomes inclusive enough to be of real use.

We planned on starting with a basic issue to include the 50,000 titles cataloged since June 1959, a decision prompted by the fortunate fact that we had an expendable file of such titles. Of course, such a large basic catalog involved also a much larger initial investment, and in the case of a pioneer computer-produced catalog, a considerable risk.

This file of titles became the basis for the information to be stored on the magnetic tape. Because of the fact that six of the 17 libraries in our system were entirely new since 1959, we would be enabled to eliminate card catalogs completely from these branches. We realized that our remaining libraries would have to suffer, at least for a time, with book catalogs *and* card catalogs for their older titles.

There is considerable disagreement, among those adopting book catalogs in systems similar to ours, in the matter of showing branch holdings for each entry. We decided initially to indicate holdings, but for reasons explained later, completely reversed ourselves after the publication of the basic catalog, eliminating holdings in the supplements. Experience so far has tended to prove that the public seldom pays any attention to the holdings indications, especially when they learn that they can obtain any title listed either by reserve or by interbranch loan. Ownership by any one branch can be determined by the branch shelflist, which we are retaining in each agency.

We also agreed on the concept that this catalog was to be a finding list, *not* a bibliographical tool. We had always done fairly simplified cataloging anyway, and frankly, we were convinced that, as bibliographical tools, catalogs are vastly overrated and underused anyway. Taking an educated guess, we estimated that only 50 percent of the people who come into our libraries use the catalog at all, and 98 percent of those use it as a finding list.

With the assent of our Board of Trustees, which has been throughout our project very helpful with advice and active assistance, we signed the contract for a computer-produced book catalog with Documentation, Incorporated. It was not an easy contract to draw up. Despite their experience in producing indexes for NASA, the contractor had never produced, using a computer, a library book catalog of this magnitude (and as far as we knew, neither had anyone else). After lengthy consultation, they made an estimate of the cost, based on hourly rates for systems analysis, programming, computer rental (both IBM 1401 and 1410 computers were used), artwork, printing, binding and the like.

The Matter of Cost

An important word needs to be said here: the charges of any contractor depend heavily upon the nature of the input, that is the amount and arrangement of the information on the card and in the final catalog. Charges will also depend upon the amount and type of programming and systems analysis, as well as upon the experience of the firm. The situation is somewhat analogous to paying General Motors for producing one car of your design or buying one of many of similar design produced for the public in general.

When it came to the number of copies to be printed, we decided to maintain 250 complete sets. Over half of these would be placed by the library without charge in all of Baltimore County's 135 schools. We are fortunate to have a very fine school library program, and few of these schools are without libraries. The school library supervisors felt, with us, that the book catalogs would enable teachers to consider the resources of the public library when giving assignments, especially at the secondary school level, and that students would also find them useful in many ways. The remaining 115 sets will be distributed in multiple copies to our branches as well as to other Maryland libraries which have expressed interest in purchasing sets at $80 each. We hope that larger industrial and business firms will also make use of the catalog.

The matter of cost held up the introduction of the catalog into our branches for nearly five months. After the completion of the basic catalog, it became very evident to Documentation, Incorporated, that the specifications agreed on, and some of the techniques employed, were going to make the continuing cost considerably

higher than at first anticipated, not too unusual in an experimental program! In any event, a new contract was drawn up after lengthy consultation which will provide to us a satisfactory catalog at a much lower cost.

We made several major changes in our specifications: supplements will be made bimonthly instead of monthly (quarterly for children's books); locations were eliminated, as were publishers, and the ALA filing rules will not be followed. This last decision was made possible both by the fact that we had a divided catalog, which simplifies filing considerably, and also by our conviction that the filing done by the computer would be satisfactory to the user as long as it was consistent. Thus far this thought has proved to be correct.

Changes were also made in page size, leaving us with a 10½" x 16" page in future issues, an awkward size. Done for reasons of economy, this may well be modified in the future with different printing methods.

The contract, as finally written, calls for a onetime entry charge of $1.20 per title, with a charge of between $5.50 and $6 per printed page, depending upon the number of copies desired. Binding charges are added, but are nominal. This contract will provide us with 250 copies of each supplement, and a second basic catalog at the end of 1966, which will cumulate the first basic with the subsequent supplements. We expect to add 20,000 titles in the two years 1965 and 1966. The cost to us will be approximately $20,000 in the 1965–66 fiscal year, and about $35,000 in the 1966–67 fiscal year, which will include the new basic catalog, listing a total of about 75,000 titles. Even if we get into extra charges for adding more titles, etc., we feel that this cost is reasonable and acceptable.

The form of the catalog, as revised, can be seen from the reproduction of a portion of a page from our author catalog supplement. The upper and lower case is easily read, and no heavy type was deemed necessary. The call number is at the right, at the end of the entry, which has caused no problems. The amount of information in each entry is severely limited in contrast to the traditional cataloging form, but has been found in use to be quite adequate.

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HOUCHIN, THOMAS DOUGLAS
  How to help adults with aphasia.  c1964
    0165-12550                                  616.85 H
HOUGH, HENRY BEETLE
  That lofty sky.  1941
    0265-15297
HOUGH, RICHARD ALEXANDER
  History of the modern battleship  Dreadnought.
  c1964
    0165-12551                                  389 H
HOUSE AND GARDEN (PERIODICAL)
  Decorating guide, fall-winter, 1964-65.  1964
  Consult Librarian
    0265-15298                                  747 H
  Modern interior.  1964
    0265-15301                                  747
HOUSE BEAUTIFUL (PERIODICAL)
  Building manual.
  Consult Librarian
    0165-12552                                  728 H
  Home decorating, fall-winter, 1964-65.  1964
  Consult Librarian
    0265-15299                                  747 H
  Home remodeling, fall-winter, 1964-65.  1964
  Consult Librarian
    0265-15300                                  690 H
HOUSING AND HOME FINANCE AGENCY
  Bibliography on housing, building and  planning.
  Rev. ed.  1964
    0165-12553                          Ref 016.711 H
HOVDA, ROBERT W.
  Sunday morning crisis.  1963
    0265-15302                                  264.02 H
HOWARD, DION B.
  Managerial problems in finance.  c1964
    0165-12554                                  658.154 H
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We have learned. How we have learned! Absolutely convinced at times that we were victims of our own mindless, reckless adventurism, we, nevertheless, have survived. A few general observations are in order. In common with many librarians, we were aghast at the difficulties which we imagined while we were reading all those articles in professional journals about library applications of data processing. We were convinced that we would never understand the difference between ADP and EDP, the intricacies of programming, the principles of systems analysis, and so on. We still don't know many of the details or even the principles, but neither do we understand the electrical and mechanical theory which is involved in the design and construction of the heating and air-conditioning equipment in our large branch libraries.

Our main job was not the comprehension of data processing as such, but the setting up of specifications. When doing this it is important to think very long and carefully of all aspects of the situation. We would recommend that others entering such a project consider carefully every item that should or should not go into the catalog: what is absolutely essential; what is merely desirable; what is on the cards because it always has been on the cards; what is dispensable, etc.

Then confer long and soul-searchingly with the programmer to make sure that there is a genuine meeting of minds and that everyone concerned is agreed on every single item involved and the way in which it is to appear in the book catalog. Insist on your own terminology; do not be overawed by "documentationese."

Communication between librarians and data-processing personnel is extremely difficult, and much time and effort was wasted because of this difficulty. Good will is important on both sides, and a determination by both sides to admit ignorance and require explanations. The jargon of data-processing personnel is as bad as ours, and it is impossible to understand without advanced study. An extremely important person is the project manager, who should do his best to bring about understanding between the librarians and the data-processing personnel.

Input is a vexing problem. The complexity of transferring information from a catalog card to an IBM card or Flexowriter tape is often wildly underestimated. In our case, there were batteries of girls punching away at cards and tape at the contractor's offices, who were highly prone to make errors in the input, as well as pacing their work more slowly than expected. The errors were often understandable, because the staff were required to store all sorts of requirements in their own heads, applying these requirements while punching.

Advantages of the Book Catalog

Our book catalog, along with the supplements, has now been in our branches since July. The public has accepted as practically a matter of course an innovation which was of great magnitude to us. We have had few if any complaints, and many compliments, and this despite the fact that recently we decided to eliminate the card catalogs from the public service areas in all branches. The staff will go through their shelflists and the collections determining which titles, acquired before mid-1959 and not since, are worth keeping, and eventually these titles will be incorporated into supplements and the next basic catalog.

The school libraries have been delighted with the catalogs, and first reports are that they are being used by students and teachers alike.

We are utterly convinced that the future of book catalogs lies in those which are computer-produced. The advantages of having the information on magnetic tape are considerable. Anticipating the applications of data processing to many of our other functions after the county installs its advanced equipment, we know that many of our tasks will be simplified and our operations rendered more efficient.

Money is important in order to both improve services and to save money. I cannot see how any small library can or should invest in a computer-produced book catalog independently. On the other hand, with the fast-moving trend toward all types of systems of libraries, better service as well as savings are inherent in book catalogs and in this method of producing them.

An interesting note here is that another library in our area with a comparable population and book collection may well benefit from the information we assembled on our magnetic tapes. Each of our titles has an "access number" assigned to it so that added or deleted location symbols, corrections, and other information can be readily fed into the computer file. If the other library will accept our information on the tape for the titles duplicated in their system, it may be that considerable input labor will be avoided by merely taking out our information by access number and incorporating it into their catalog. Variances in classification may be a problem.

For large libraries with collections of many thousands of titles, retrospective conversion to book catalog form is a project the scope of which is difficult to comprehend. Our neighbor to the south, the Enoch Pratt Free Library, is currently contemplating such a project, and showing a rare brand of courage, I believe. But unless librarians evince this type of courage in regard to data processing as well as to other problems involving technological sophistication, we will be unable to meet the demand of the public for books. To sum up our experience, I can only add the remarks of Miss Kieffer, who stood in my office doorway recently, saying wryly: "At each step in this process we have learned what we should have known before we took the preceding step."

The Baltimore County Public Library Book Catalog

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ON JULY 15, 1965, the Baltimore County Public Library issued its completely-computerized book catalog to the fourteen branches comprising the Library system. Part of the story, such as the administrative decision to choose the computer process, has appeared in print,* but the Editors of *LRTS* thought its readers would be interested in more of the details of adapting conventional cataloging to the machine-produced book catalog.

The catalog was produced under contract by a commercial firm which had had experience in indexing, information retrieval, and publication, but no experience with book catalogs. While the contractor had librarians on his staff, none was assigned to this project. The Library personnel had had no experience with computers, and knew nothing about programming.

The contract called for a basic book catalog of approximately 55,000 titles, monthly cumulative supplements for 1965, and a second basic (i.e. complete) catalog incorporating the additions. The contract was later renegotiated, and the monthly supplements were changed to bi-monthly supplements cumulated for one year, with new cumulations for the second year and a second basic list incorporating the cumulated supplements and the first basic at the end of two years instead of one year.

The information is stored on magnetic tape from punched cards generated from the source documents, and the organization of the input is by computer. The eventual print-out is by an IBM printer using the 120-character print chain with upper- and lower-case letters.

The cost per year for from eight to ten thousand titles entered will be $25,000 to $40,000 depending upon whether there are supplements only or a basic list with supplements. This cost is based on a fixed charge for each title entered on the magnetic tape plus a charge of between $5.50 and $6.00 per page, depending on the number of copies run.

General Procedures

In order to supply the contractor with material for input—or the source document—we decided to use the central shelf list, which had been developed since 1959 by running off an extra card for every title added to the system. In the period from 1960 to 1965 four new branches had been opened, so that the titles in these branches, as well as many titles added to the older branches, were all represented in the shelf list. There remained about forty thousand titles of older works which did not appear in the central shelf list. Branch holdings were not shown in the shelf list but in a separate alphabetical holdings file. In some cases the shelf list did not reflect in the tracings a number of changes which had been made in the subject headings, notably changes of policy as to abbreviations.

In July 1964 the Library's Processing Department stopped all other work and arranged the shelf list alphabetically by author, then checked it against the central holdings file to add the symbols for the holdings of the branches. The first decision was to include the holdings in the book catalog; but they were later omitted from the supplements and subsequent basic catalogs, because the time and expense of updating them was found to be out of all proportion to their anticipated use. The process of alphabetizing the cards and transferring the holdings took twenty people two weeks.

After the holdings had been transferred, one cataloger spent six weeks editing the cards to add titles where necessary and, in some cases, to shorten the body of the entry. No effort was made at this time to standardize the abbreviations used in the tracings, because at that time we thought that abbreviations could be filed as if written out. This editing should have been much more extensive in the light of future decisions, but we did not know this at the time.

Also at this time a set of six hundred cards was developed for a systems checkout. This set had examples for all the filing rules and for various kinds of entries: title, catch title, series, subject, editor and added author. However, the contractor could not run this checkout and meet his schedule, so that a great many errors appeared in the first basic catalog which might not have occurred had the systems checkout been run.

Simultaneously, conferences were held between the Processing Department staff and appropriate representatives of the contractor to try to establish a mutual understanding of terminology and procedures. Since our mutual ignorance was so vast, not much progress was made, semantically speaking. This failure did not become wholly apparent until the book catalog was finally completed. The contractor assigned no one as project coordinator, which meant that the diverse departments of the contractor were not always aware of changes, new agreements, etc., made by the sales representative. This increased the confusion and was the source of many errors.

Early in November, 1964, the contractor began supplying the Processing Department of the Library with linear proof. Since linear proof is not page proof but is in the form of coding for the computer, the staff had to be trained and retrained several times to understand and interpret the coding and relate it to the material on the original shelf list cards and to incorporate changes due to misunderstandings. The whole proof-reading operation took seven weeks with about twenty-five people participating,

* Robinson, Charles W. "The Book Catalog: Diving In." *Wilson Library Bulletin*, 40:262-268. November 1965.

not all on a full 40-hour schedule. As the proof-reading progressed, the corrected proof was returned to the contractor. There the corrections were coded in by a staff of twelve who had been hired for this particular job, and who understood very little of what was involved.

Since a new branch was scheduled to open on March 15, 1965, it was hoped that the book catalog would be ready so that it would not be necessary to provide a card catalog there. By the end of February, it was clear that the book catalog would not be ready in time for the opening. Fortunately, we had continued to make catalog cards for the branch, and 87,500 were on hand, unalphabetized. The Processing Department again stopped all other operations for two weeks and arranged the cards. Card cabinets were borrowed, and the branch opened with a card catalog.

In April, after an advance copy of the book catalog had been received by the Library, a check was made to see how accurately the catalog located a book. Ten percent of the cards in the shelf list of an area branch were searched, and four tallies were recorded: "Found" (i.e. the book could have been found from the information in the book catalog); "Not Found" in three categories: "Not in Catalog," "Wrong Call Number," and "Out of Alphabetical Order." Errors in spelling, capitalization, etc., which would not affect the "findability" of the book, were ignored. The catalog was found to be slightly less than 90 percent accurate. Later, supplements 1 and 2 were similarly checked and found to be about 99 percent accurate.

Filing

The Baltimore County Public Library uses the filing rules listed in Appendix V of the *A.L.A. Rules for Filing Catalog Cards,* with some local modifications. In the preliminary discussions with the representatives of the contractor it was thought that the only concession the Library would have to make to the machine was to accept the filing of Mc after the Ma's. This turned out to be an erroneous conclusion. Since the book catalog is divided, many of the rules in Appendix V do not apply. Some rules presented no problem; comments on the others (by number) follow:

2. *Modified letters*

The computer print chain has no diacritical marks.

3. *Signs and symbols*

The computer cannot recognize an ampersand as "and." It was necessary to key punch it thus: & [and]. Now when an ampersand appears in the title of a book, it is being written out as "and." The print chain has no ampersand, and a plus sign was being used.

4. *Initials and acronyms*

Initials and acronyms can be filed before a word beginning with the same initial letter only if they are written with spaces between the initials.

It is also necessary to have periods either always or never. We chose to omit the periods with one exception (see below under #5).

5. *Abbreviations*

Abbreviations cannot be arranged as if written out. All abbreviations in titles are now being written in full. We will continue to abbreviate United States as "U. S." (Prior to 1962 we had not abbreviated United States. This created a problem since some of the tracings were abbreviated and some not. The program was changed to take care of this in the subject catalog but not in the author catalog.)

7. *Initial article*

The Baltimore County Public Library has never used the initial article (although a few crept in by mistake). For those libraries which do use the initial article, a special symbol would have to be used to indicate non-filing. One disadvantage of this is that a symbol thus used can never be used for anything else.

9. *Numerals*

(a) In order to file numerals as if spelled out in the language of the rest of the title, it is necessary to key punch them thus: 100 [one hundred]. We are now writing out all numerals in titles.

The computer cannot recognize Roman numerals as numbers and files them as letters. This causes some peculiar filing under kings, popes, etc.

(b) We are now inverting titles so that the date follows "Annual report," etc.

11. *Hyphenated and compound words*

(c) Words with hyphenated prefixes are filed as two words.

13. *Names with a prefix*

(a) Names with prefixes are filed as two words. To avoid this, we are now typing them without spaces, e.g. DeLaRoche.

(b) Mc is filed as written, not as Mac.

18. *Forename entries.* Arrangement 2 (After surname)

This has not been done. The result is as follows:

Charles County, Md.
Charles d'Orleans
Charles family
Charles, John

19. *Surname entries*

(f) The computer cannot disregard titles of honor. We are now omitting them.

25. *Arrangement under author*

(a) 1. The computer cannot disregard such designations as ed., comp., in filing. We are now omitting such designations.

4. There are no analytics in the book catalog. There is no way in the present program of taking care of them.

6. Editions have to be arranged with the earliest date first. Our former practice was to file the latest date first.

35. *Subject arrangement*

It was our practice to file form subdivisions of history before period subdivisions. Since some subdivisions under United States had no dates, we supplied them. These were to have been keyed for sorting but not printing out. However in the final product the filing under United States history was so inconsistent that it was necessary for the Library to retype these entries and have them issued (by the contractor) as a supplement to the subject catalog.

Under Great Britain, France, and Germany, even though the headings had dates, they were interfiled with the form subdivisions with the headings with dates *alone* filing last. Since we have relatively few entries under these and other countries, we have decided to accept this arrangement.

A peculiar error that the contractor cannot explain occurred in the title catalog. Titles which consist of a phrase are filed before the initial word alone, e.g. Art for everyone

Art of the theatre

Art

This has been corrected in the supplements.

Except for the changes mentioned above to control the filing, it has been decided to accept the computer filing as long as it is consistent.

Cataloging Details

The Baltimore County Public Library has always done simplified cataloging. As work on the project progressed, we came to the conclusion that what we wanted was a finding list rather than a bibliographic tool. This thinking was not entirely reflected in the basic catalog but is quite apparent in the supplements.

The call number consists of the classification number, the author's initial, and, in the case of different editions, the copyright date. Provision was made in the program for Cutter numbers, should we ever decide to Cutter. In the book catalog the call number appears in the lower right hand corner of the entry. In the lower left hand corner is the access number which is assigned to each entry by the contractor.

Author's dates are used only to distinguish authors with the same name. The Wilson publications and/or the Library of Congress catalogs are used as authorities for personal and corporate authors.

Added entries are made for all distinctive titles, including those which are identical with subject headings—this is done because the catalog is a divided one. An added title entry is also indicated when the main entry is a title, so that it will appear in both the title and author catalogs.

No added entries are made for joint authors. Entries for added author, editor, translator, etc., are used only when there might be difficulty in finding a book without them. In some cases, if no added entry for author is deemed necessary for the book catalog, a cross reference is made for the central-holdings file as an aid in searching by the Processing Department.

Series added entries are used for relatively few series.

There is no limit to the number of subject headings used.

The "by" phrase (or "author precedor," in computerese) is now used only when an added entry is made for compiler, editor, etc. It was formerly used for joint author statements and when the author's name selected for use differed from the name on the title page. This "by" phrase was the cause of many errors in the basic catalog, particularly in the title catalog where, instead of showing the first author only for joint authors, the whole phrase appeared.

Subtitles are transcribed mainly to distinguish otherwise identical titles. Subtitles are always preceded by a semicolon. Since only the short title was to be used in the title and subject catalogs, some definition had to be evolved. The short title was defined as being that part of the title up to the first stopping punctuation mark, stopping punctuation marks being semicolon, period, exclamation mark, and question mark.

Edition statements are always used.

The imprint consists of the copyright date (not preceded by a small "c") or the imprint date if there is no copyright date.

The only collation item used is the number of volumes in a multivolume work.

Contents notes are used sparingly, annotations not at all. Series notes are used only when a series added entry is needed; these appear in the title catalog. Our former practice was to use more series notes than series added entries. Bibliographic notes are used mainly for changed titles and are written within curves as are the series notes. We changed our practice for series notes, because all notes, whether bibliographic or series, appear in the title catalog as titles, e.g. "Formerly published under title—" etc.

A note has been added to the usual list: "Consult Librarian." This is used for annuals and frequently-revised books. The imprint date and the date in the call number are omitted for these titles.

Cross references are used in the author catalog to refer from one form of the author's name to the one established for use and from real names to pseudonyms and vice versa.

No cross references are used in the subject catalog as each branch has a copy of *Sears List of Subject Headings* kept near the book catalog for reference.

As soon as the book catalog was put into the branches, the Processing Department stopped making sets of catalog cards for them. The branches now receive a shelf list card and one author card, the latter showing the

number of the supplement which will contain the title. These author cards are filed in an "orders received" file and kept there until the appropriate supplement has been received, at which time the file is weeded. These have come to be known as "s" cards.

Changes

An additional routine concerns changes, corrections, and withdrawals. The contractor is now designing a form to be used to record all of these transactions. At the present writing the changes are being made on the original input cards, if we have them, in red pencil. If the cards for a supplement are with the contractor, a note is sent asking that the change be made. For withdrawals, the word "kill" is written at the top of the card in red. The top edge of the card is coated with green so that it will be possible to remove all the cards easily, if necessary.

There are three sources of errors in the book catalog: our errors (mainly misspelling and two different forms for one subject heading), the key-punch errors, and the errors in programming. Most of the errors in key-punching and programming affect corporate authors, particularly those with subdivisions. A number of headings appear in the wrong catalogs—subjects in the title catalog, authors in the subject catalog, etc.

The original program was for information retrieval and has been revised for one of publication only.

Since there were so many errors in the first basic catalog, the contractor has agreed to correct the Library's errors along with his own and to make changes and withdrawals without charge if the Processing Department does the proof-reading. This work was scheduled to begin in November 1965. In the meantime, the Department is subdividing many overloaded subject headings.

With the book catalog, it is quite simple to make changes in subject headings by correcting the input cards in red, since the branches do not have to receive new cards. Changes in classification are more complicated. It would not be advisable to change classification numbers on books too far in advance of the second basic catalog since the first basic catalog shows the present number. Changes will be made on the source document for the second basic catalog, and the branches will be notified of the changes three weeks in advance of the publication of the second basic catalog so that the books can then be changed.

It is a little difficult at this time to determine how much, if any, staff time has been saved by the book catalog. The only time saved for the catalogers has been by being able to consult the catalogs at their desks. Some of the clerical time has been cut down by not having to assemble sets of cards and type on headings for branches. A new routine has been added: that of filing input cards and keeping track of the number of cards for each supplement. The Multilith operation for running catalog cards has been cut to 50 percent. In the branches varying amounts of time are saved by not filing catalog cards.

Pre-1960 Records

The ten original branches of the Baltimore County Public Library all have in their shelf lists titles which have not been added to any branch since 1960. It may be that in some cases the books themselves no longer exist, or if they do, would be candidates for withdrawal.

In order to "clean up" these shelf lists and at the same time weed the collections, the branches are reading their shelf lists for titles not in the book catalog. Any title published before 1960 which does not have a recent identification number or is not in the book catalog is being searched for. If it is not found after six weeks, it will be withdrawn. If it is found, a decision is made either to keep it or withdraw it. A list of the titles to be retained will be sent to the Processing Department for adding to the second basic catalog or a supplement. Records for the remaining titles will be withdrawn.

Reception of the Book Catalog

The reaction to the book catalog by the public, the public service librarians, and, to a certain extent the catalogers, has been overwhelmingly favorable.

The card catalogs have been removed from all four of the branches opened since 1960 and from the public service areas of the other ten. After the initial shock of looking for the card catalog and not finding it and not seeing the sign telling about the book catalog or the book catalog itself, the public in most cases accepts it with little or no comment. A few patrons show some curiosity about the reason for it. One person to date has objected to it violently.

The reference librarians find it easy to use and find it very helpful in answering telephone requests. The catalogers each have a copy and use the subject catalog constantly in their work. Much time is saved in being able to consult the catalogs at the cataloger's desk without having to walk to the central catalog.

The book catalog has been put into all the county public schools. Many of the children are using it merely out of interest to see if they *can* use it. It is also being taught as an instructional aid and for personal use. One month after the opening of the schools, the inter-library loan requests within the system had increased by 63 percent over the previous September. The patrons are now able, by means of the book catalog, to see the resources of the entire system instead of the holdings of one branch only, as was the case with the individual card catalogs.

In spite of the hard work and frustrations of the last year and a half, it is possible to answer the question, "If you had it to do over again, would you?" by saying, "Yes, we would."